

REDCAR URBAN DISTRICT COUNCIL.

COMBINED DISTRICT COUNCILS

GUISBOROUGH UNION.

REPORT

FOR THE YEAR 1913

OF THE

MEDICAL OFFICER OF HEALTH,

W. W. STAINTHORPE, M.D. C.M., D.P.H.

To the Chairman and Members of the Redcar Urban Council.

GENTLEMEN,

I have pleasure in submitting for your consideration my Report for the year ending December 31st, 1913.

Redcar, consisting of the old town of Redcar, of Coatham (the residential quarter) and of Warrenby, lies on the plain between the Cleveland Hills and the sea. Coatham and Warrenby lie on post glacial beds, blown sand and alluvium. Old Redcar is also on post glacial beds, blown sand and effluvium, except that portion of it which is south of a line drawn from Redcar Church to the Gas Works : this portion is on the lower lias (soft sands and shales).

Redcar is a popular sea side resort. During the summer its population is considerably increased. In addition there are few summers which do not see a large contingent of territorials within the district. Being within easy distance of Middlesbrough, Southbank, etc., it is the place of residence of a large number of artizans and others employed in these places. A number of men are engaged at the blast furnaces, slag wool works and slag brick works at Warrenby.

Birth and Mortality Rates.

Population at middle of 1913 (estimated)	...	11,500.
Births (corrected)	...	258 (133 males, 125 females).
Birth rate	...	22·46.
Deaths (corrected)	...	149 (68 males, 81 females).
Death rate	...	12·95.
Infant mortality rate (per 1000 births)		108·5.
Infectious diseases death rate (tuberculosis excluded)		1·04.
Tuberculosis death rate	...	1·21.
Diarrhœal diseases death rate		0·52.

Inspections.

Nuisances ascertained to exist during visits made by the Nuisance Inspector or on complaint are either reported by entry in his journal, or the attention of the owner of the property called thereto. Where it appears desirable the premises are visited by me before any action is taken. Particulars of nuisances which come under my own observation (when inspecting alone) are either sent to the Inspector for entry in his journal or reported by me direct to the Council, or communicated to the ownor. The items in the Journal and in my report are considered by the Sanitary Committee (consisting of the whole Council) at its meetings (once a month) and the necessary recommendations made by that Committee to the Council. From time to time the Inspector reports the result of the notices served and where necessary steps are taken to enforce compliance.

Number of Inspections under Housing Acts	...	96
Ditto under Factory and Workshop Act		252
Ditto under Cowsheds, &c., Order	...	122
Ditto of slaughterhouses	...	214
Number of visits under Notification Act	...	160
Number of notices sent to Teachers (re infectious cases)	...	210
Number of premises disinfected	...	132
Number of statutory notices served	...	64
Number of notices complied with	...	63
Number of outstanding notices	...	1

Sewerage.

The sewage of Redcar and Coatham discharges into the sea at three points. Attached to the sewers are thirty ventilating shafts. The sewage of Warrenby discharges into a "stell" thence by a circuitous route into the sea.

Scavenging, &c.

Number of water-closets	...	...	...	...	1557.
Number of fixed ashpits in combination with conveniences	...			...	287.
ditto	not in combination	ditto	...	...	25.
Number of moveable iron receptacles with covers			...	...	406.
Number of moveable receptacles of other forms	...		...	...	1934.

(Note —the 1934 receptacles are for nightsoil as well as refuse).

Number of middens replaced by moveable receptacles in recent years	...	71.
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The type of receptacle required to be provided in connection with new houses is a covered metal bin.

The scavenging is carried out by the Council's employees. Fixed refuse receptacles are emptied once in three weeks, moveable receptacles once a week, moveable receptacles receiving nightsoil and refuse twice weekly. The contents of moveable receptacles are conveyed away in covered carts, the contents of fixed in open carts. The refuse is carted to two tips where it is sorted;—one of the tips is 1000 yards from inhabited houses, the other 470 yards. Refuse which can be burnt is so destroyed. Other refuse and nightsoil is carted on to land by farmers. Trade refuse is removed in the Council's carts to the tips. Street scavenging is carried out by the Council's workmen under the supervision of the Surveyor. Cowkeepers, horsekeepers, &c., make their own arrangements as to the removal of animal manure:—the Byelaw requires such manure to be removed once a week.

Public Health Acts Amendment Act, 1907 :—Section 39, sub-section 4.

Under the Section and sub-section named sixty-nine water-closets were substituted for conveniences with fixed receptacles.

Water Supply.

Coatham and Warrenby are supplied by the Cleveland Water Company under an arrangement between that Company and the Council. Redcar is supplied from a reservoir situate about two miles to the south of the town, fed by a spring and from bore holes; steps are being taken to provide an apparatus for softening the water pumped from the bore holes.

Cowsheds and Dairies.

The Register contains the names and addresses of nineteen cowkeepers and eight dairymen. The inspections of these numbered 122 :—one notice to cleanse and to limewash was served and complied with.

Foods,—inspection of premises where prepared or stored.

The majority of premises where food is prepared for sale are inspected under the Factory and Workshop Act; the number of visits paid to these is included in that stated in the paragraph relating to factories and workshops. During the summer months the fruit stalls and carts and ice-cream barrows were inspected.

Slaughterhouses.

There are seven licensed or registered slaughterhouses in the district. The inspections of these numbered 214;—a large number of carcasses were examined, none found unfit for food. One notice to remedy a defect served and complied with.

Elementary Schools :—Table of particulars re Water Supply,
Sanitary Conveniences, &c.

School.	Sanitary Conveniences.	Is Water on Premises ?	Yard Pervious or Impervious.
Zetland Mixed ...	W.Cs. ...	Yes ...	Impervious.
Zetland Infant ...	W.Cs. ...	Yes ...	Impervious.
West Dyke ...	Pails ...	Yes ...	Impervious.
Coatham ...	W.Cs. ...	Yes ...	Impervious.
Warrenby ...	Pails ...	Yes ...	Impervious.
R. C. school ...	W.Cs. ...	Yes ...	Impervious.

Housing, Town Planning, &c., Act, 1909.

Number of dwelling-houses inspected under the Housing, Town Planning &c., Act, 1909 ...	75
Number of dwelling-houses considered unfit for habitation ...	nil
Number of representations made with a view to making closing orders ...	nil
Number of closing orders made ...	nil
Number of dwelling-houses in which the defects were remedied without the making of closing orders ...	nil
Number of dwelling-houses made fit after making of closing orders ...	nil
Number of notices served to make houses fit for habitation ...	nil

Condition of houses inspected as to								
Lighting.			Air Circulation.			Cleanliness.		
Good ...	62		Good ...	62		Clean ...	20	
Fair ...	13		Fair ...	13		Fair ...	32	
Bad ...	0		Bad ...	0		Not clean ...	15	
						Dirty ...	8	

Note.—The word “ Fair ” is used when the conditions are such as to leave room for improvement : “ Not clean ” where the room for improvement is considerable : “ Dirty ” where it is desirable to give notice under Section 46 of the Public Health Act, 1875.

Particulars of defects found :—

House yards in defective condition ...	3
Sanitary conveniences ditto ...	2
Damp or defective walls ...	8
ditto ditto floors ...	4
Defective windows ...	3
Other defective or insanitary conditions ...	17

House Accommodation.

The inspections and special visits made by me during the year led me to believe that further house accommodation was required. There is every reason to believe that this need will be met when the houses in course of construction and those about to be built are completed.

Number of houses erected during the year ...	27.
Number of houses in course of construction ...	17.
Number of plans of dwellings approved of ...	6.

Tents, Vans, &c.

A large number of tents were in use during the summer months. The majority were on land at the east end of the town. These tents and their surroundings were inspected from time to time. It was found necessary to serve several notices to comply with one or more of the Byelaws. The occupants of some of the tents who go to work daily in neighbouring towns shut them up completely during the day thus retarding efficient ventilation. Some better method for the ventilation of tents than that in use at present is desirable.

Infectious Diseases (Notification) Act.

The following Table shows the number of cases, &c., reported under the Act :—

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages.—Years.							
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and up- wards.	
Diphtheria (including Membranous croup) ...	59		10	42	3	4			Nil
Erysipelas ...	6	2					2	2	
Scarlet Fever ...	86		15	60	8	3			48
Enteric Fever ...	3				1	2			
Pulmonary Tuberculosis ...	18				4	12	2		
Other forms of Tuberculosis ...	10			3	3	2	1	1	
Totals ...	182	2	25	105	19	23	5	3	48

No case of any of the following diseases was notified :—
small-pox, typhus fever, puerperal fever, poliomyelitis, cerebro-spinal meningitis.

There are certain factors influencing the spread of the infectious diseases of childhood which require fuller appreciation than is accorded them at present. Given two districts or two parts of a district, A and B. Let the child population in A be greater proportionately than in B, then in A the number of cases will, other things being equal, be larger than in B. Let there also be in A the existence of some condition (not present in B) which favours the spread of the disease, such as the aggregation of a large number of houses of one type the occupants of which intermix freely with their neighbours, then the greater prevalence of the disease in A can be readily understood and does not require for its explanation the assumption that it results from some local insanitary condition. It is very important that the public should understand the conditions which lead to the dissemination of infectious diseases. Anything which fosters the belief that this is due to defects in sanitary arrangements induces carelessness. It is natural that it should be argued that if such defects are the cause, it is useless to take the usual precautions as to isolation, &c.

On receipt of a notification the following information is obtained and entered on a Form:—the day and Sunday schools attended by children living in the infected house, the occupation of the householder and of other adults, the milk supply, the number of occupants, the number of rooms. Where it appears necessary or desirable I visit the infected house. Disinfection of bedrooms is carried out by the Council's workmen under the supervision of the Sanitary Inspector.

Scarlet Fever.

Number of cases notified	...	86 (44 males, 42 females.
Number of deaths	... ..	6.
Case mortality	... ..	6·9 per cent.

Of the 86 cases notified fourteen occurred during the first quarter of the year, thirteen in the second, twenty-seven in the third, and thirty-two in the last quarter. Fifty of the cases occurred in Redcar (as distinct from Coatham and Warrenby) in thirty-nine houses,—twenty-two in Warrenby in thirteen houses and fourteen in eleven houses in Coatham. No milk supply was implicated in the dissemination of the fever, nor any particular school. Forty-eight cases were removed to the Sanatorium: had the accommodation permitted more would have been sent there.

When several cases of scarlet fever occur among children grouped together in a school it is probable that in many instances the medium of infection was a child suffering from the disease in its initial stage. It is not uncommon to be informed when making enquiries at school that such and such a child was sent home as it appeared to be feverish or was sick. Assuming that the child was subsequently found to be suffering from the fever it can readily be understood that it may have affected children sitting near it.

Diphtheria.

It does not follow when the specific bacilli of diphtheria invade a body that the disease will manifest itself (if ever it does so) after the ordinary incubation period. Diphtheria is first a local disease then a general. If the local conditions, that is the state of the mucous membrane of the mouth, throat, nose, &c., are unfavourable to the growth of the bacilli at the time of invasion they fail to produce the disease. But the bacilli may remain in contact with the membrane for a considerable time ready to take effect should the conditions change in such a way as to favour their growth and the production and absorption of the poison which renders the disease general.

Number of cases notified	...	59.
Number of deaths	... ..	4.
Case rate mortality	... ..	6·9 per cent.

In reporting upon diphtheria I cannot do better than quote in extenso a report recently laid before the Council on the prevalence of this disease in the district.

In reporting upon the prevalence of Diphtheria in the Redcar Urban District, it is desirable to divide the district into three parts—(1) the area comprised in the Urban District of Redcar, before Coatham and Warrenby were amalgamated with it, which for the purpose of this report I will call Redcar; (2) Coatham; (3) Warrenby. Redcar lies at the East end of the district; Coatham adjoins it on the West; Warrenby lying still further West, about three-quarters of a mile from Coatham.

Within the last ten or twelve years a very large number of houses has been built in Redcar. These are largely of one type and are mainly occupied by persons employed in the iron and steel works, in and around Middlesbrough, and by shopmen, clerks, etc. Coatham is chiefly occupied by business and commercial men, by persons who have retired from business, and by persons who let rooms to visitors in the summer months. The houses (177) at Warrenby are inhabited by men employed at the iron works there. Not only is the number of houses in Redcar larger than in Coatham and Warrenby combined, but the class of population in Redcar is such that there is a larger number of children compared with adults. There is thus a larger number of persons susceptible to diphtheria, this disease occurring mainly among children of school age.

Of the 59 cases of diphtheria notified during the year 1913, 24 occurred during the first nine months, 35 in the last quarter. Of the total number of cases 31 occurred in houses (in Redcar) built within the last ten or twelve years. At first sight it would appear as if the prevalence

of the disease was due to some condition or conditions specially affecting these houses. In my opinion the explanation is the existence of a proportionately larger child population in this part of the district. There is another factor—the new streets consist of houses of the same type, the result is that the social status of the occupants being practically the same, there is freer inter-communication between families than there is where the population is more mixed. That this inter-communication was a factor is indicated by the fact that in one street cases occurred in seven houses, in two others in four houses (each).

Of the 59 cases notified only six occurred in Coatham, not a single case in Warrenby. Coatham appears to have acted as a buffer state between Redcar and Warrenby.

Particulars were obtained in each case of school or schools attended by children living in the infected house and of the source of the milk supply. It may at once be stated that there was not the slightest indication that any milk supply was implicated.

An analysis of the 35 cases reported during the last three months of the year shows that the children living in 16 of the infected houses attended the Zetland School, 8 the West Dyke, 3 the Coatham, 2 the Romau Catholic, 1 the Grammar School, 1 both the Zetland and the West Dyke, and in four instances no child attended school. It does not follow that because there occurred a larger number of cases among children attending the Zetland school than any other school, that this school was acting as a factor in the spread of the disease. The disproportion certainly was not such as to warrant my recommending the closure of that school. Between the date of closure of the schools (for the Christmas holiday) and the end of the year five cases were notified:—in three of the five houses the children attend the West Dyke school, in one the Zetland, in one there is no child of school age.

Some years ago I arrived at the conclusion, after considerable experience of diphtheria in the several districts in the Guisborough Union, that between insanitary conditions and the prevalence of diphtheria there exists no direct connection. If defective sewerage be a cause why should there be so few cases in Coatham, why no case in Warrenby? The sewage systems in Coatham and Redcar are alike; at Warrenby the sewage and that of the Sanatorium passes into an open stell.

If diphtheria be due to the existence of old and poor houses how is it that in the oldest and poorest class of houses so few cases occurred? Lord Street (which runs the whole length of Redcar from East to West), Smith Street, Church Street, and Fisherman's Square, contain the oldest and poorest houses, yet only five cases occurred in these streets, of these five, one was in a house recently erected, and two in houses which certainly could not be described as old or poor.

Efficient disinfection of a house and its contents is exceedingly difficult. During convalescence the patient frequently moves from room to room. in this way the whole house practically becomes infected. There is the further fact that persons coming in contact with the patient may act as carriers, that is they may receive and harbour the specific bacilli without being affected thereby; such persons may re-infect the house after disinfection has been carried out. That inefficient disinfection was a factor in the spread of the disease is negated by the fact that in no single instance was a second case in any house reported. It is natural to assume that the first persons to be affected would be those who came in close and continuous contact with the patient.

Were defects in the sanitary arrangements of houses or of districts the cause of diphtheria, the stamping out of that disease would be a comparatively simple matter. Not only so, there would be placed in the hands of the medical officer a valuable tool by which he could bring about sanitary reforms inasmuch as he could always urge that the prevalence of that disease indicated insanitary conditions.

It has always been a puzzle to me why diphtheria, an infectious disease, should be supposed to be due to or spread by defective sanitation any more than scarlet fever, measles or whooping cough.

In my opinion the isolation of cases of diphtheria is of greater importance than those of scarlet fever.

Of the fifty-nine cases notified four ended fatally. The chief cause of the prevalence of diphtheria in the Redcar Urban District is the absence of isolation accommodation. True it is that the Council rents a small building in which cases of infectious disease are isolated but only one form of infectious disease can be isolated at one and the same time.

Since the above report was issued I have obtained particulars of the numbers of children on the registers of the several elementary schools in the district and the number of such children living in Redcar, the number living in Coatham and the number living in Warrenby. These figures show that in Warrenby the proportion of school children to each 100 houses is 132, in Redcar it is 86, whilst in Coatham it is only 48.

Number of 'Swabs' sent for bacteriological examination	...	127.
„ „ which gave positive result	... ..	55.
„ „ „ negative result	... ..	72.
Number examined as an aid to diagnosis	... ..	85.
„ „ to ascertain if patients were infection free	...	42.

Measles.

No death from measles was recorded during the year.

Much difference of opinion exists as to whether or not children living in a house infected with measles should be permitted to attend school. In his Supplement to the Annual Report of the Local Government Board for the year 1912—1913 Dr. Newsholme (the Chief Medical Officer of that Board) says “ Not infrequently objection is raised to the attendance at school of children “ who have had measles and are over the age of attendance in infant schools, who come from “ households in which there is a case of measles. Such attendance under the common conditions “ of town life is justifiable, so long as it remains true that most of the children above the infant “ classes have already had measles. All clinical evidence points to the conclusion that measles “ is infectious chiefly by direct conveyance from the patient, and that its conveyance by fomites “ (clothing, etc.), is negligible.”

Enteric Fever.

The total number of cases of enteric fever notified in the whole of the districts in the Union was four. Three of these occurred in the Redcar district, the fourth in the Skelton and Brotton. One of the three in Redcar apparently was contracted from one of the other two in that district. The source of infection of the others I was unable to trace definitely:—one was possibly due to infected shell-fish, one probably contracted out of the district.

Tuberculosis.

The following Table shows the number of cases, &c., notified in the several districts.

District.	Pulmonary.	Other Forms	Total.	Males.	Females.	Rate per 1000 of the population.
Guisborough Rural ...	11	6	17	7	10	2·16
Guisborough Urban ...	12	8	20	10	10	2·81
Loftus Urban ...	11	4	15	11	4	1·61
Redcar Urban ...	18	10	28	15	13	2·43
Saltburn Urban ...	2	4	6	2	4	1·71
Skelton & Brotton Urban	15	20	35	24	11	2·18
Totals, &c. ...	69	52	121	69	52	2·18

The Public Health (Tuberculosis) Regulations, 1912, which came into force February 1st, 1913, require the notification of cases of tuberculosis of all forms. The medical officer of health or an officer of the Local Authority acting under the instructions of the medical officer of health is required to make enquiries and take such steps as are necessary or desirable for investigating the source of infection, for preventing the spread of infection and for removing the conditions favourable to infection. The Local Government Board suggest that the Tuberculosis Officer should undertake the duties, or some of them, of the medical officer of health. As no such officer has as yet been appointed I have had no assistance in carrying out the duties.

For the better appreciation of the difficulty met with in endeavouring to trace the source of infection it is desirable to make a short statement of what is known as to the cause of tuberculosis and of the means by which it is disseminated. The disease is due to the invasion of the body, generally by inhalation or ingestion, of the specific bacilli. The time the symptoms manifest themselves bears no relation to the time of invasion. It is probable that in some instances the invasion is accompanied by symptoms of an indefinite character. In one individual the bacilli may be overcome and destroyed, in another they may be imprisoned in some organ or tissue of the body remaining there in a dormant state ready to resume activity if by any means they are liberated. It will thus be understood that the true source of infection may be difficult to trace.

The sputum of a patient suffering from pulmonary tuberculosis contains the specific bacilli :—infection may be contracted therefrom by the inhalation or ingestion of fine particles of the dried sputum. The disease may be contracted by the use of tuberculous milk or meat :—the information at present possessed renders it impossible to say to what extent the one or the other is responsible.

Of the 121 houses in which tuberculosis was notified to exist 105 were visited by me, to 29 subsequent visits were paid. In by far the larger number of cases it was impossible to arrive at any conclusion as to the source of infection.

In each of thirteen instances it was ascertained that the disease had been contracted before the patient had come into the district. In each of five cases it is probable that the infection proceeded from a previous case in the house. Two patients, a soldier and an ex-soldier, apparently became infected whilst serving in the Army. Four either contracted the disease whilst resident in asylums or it was latent in them at the time of admission.

Predisposing Causes. Post-mortem examinations show that very many persons who have died from diseases other than tuberculosis have at one time or another been invaded by the tubercle bacilli :—the many are invaded, the few (comparatively) become the prey ;—the many overcome the foe, the few are unable to do so. The inability to overcome appears in some instances to be inherited, in others it results from living under conditions inimical to health generally. It is assumed therefore that whatever promotes the attainment of 'the sound mind in the sound body' increases resisting power. Soundness of mind, using that term in its broadest sense, is an important factor, a factor which is not sufficiently appreciated. There is little doubt that grief and worry lower the vital power considerably, probably to a greater extent even than unhealthy environment.

In one third of the cases enquired into it was ascertained that one or other near relative was suffering from or had succumbed to consumption. Could precise information on the point have been obtained there is little doubt that this proportion would have been found larger. The cause of death of a relative is not always known especially if that relative has died during the childhood of the patient whose case is under enquiry. Nor is it to be overlooked that whilst death from pulmonary tuberculosis (consumption) may be known to members of the family, death from some other form of the disease is not so likely to be.

Of the predisposing causes the chief are :—

- Deficient nutrition resulting from unsuitable or improperly cooked food or its insufficiency.
- Inefficient bedroom ventilation.
- Inadequate or excessive clothing.
- Neglect of minor ailments.

Prolonged physical or mental strain.
 Bad home conditions causing neglect of children.
 Alcoholic or other excesses.
 Anxiety or grief.
 Unhealthy environment.

Of the 105 houses visited by me it was found that in 72 the environment was good, in 32 it was fair, in one bad :—in 62 the home conditions were good, in 28 they were fair, in 15 bad. In the 15 mentioned there were signs of general neglect. There was no indication that the disease unduly affected persons following any particular employment. Of the male adult patients ten were miners, five labourers, three clerks, three engineers, two masons, two draughtsmen :—the employment of the remainder varied. Of the female adults four were or had been in domestic service,—twenty-three were ‘housewives.’ Two members of one family were attacked the disease manifesting itself in each at such time as precluded any probability that the one contracted it from the other, moreover they resided in different districts and had not, previous to being attacked seen each other for some time. Many years ago this family came under my observation owing to the very bad home conditions which existed, conditions which ‘undoubtedly contributed very materially to the members mentioned becoming a prey to the disease.

Action Taken.—Such advice was given in each case as the circumstances called for. Cuspidors and cards of instructions were supplied where needed. Where insanitary conditions existed (in very few instances were such found) steps were taken to have them remedied. In such cases as appeared desirable the names and addresses of school children living in the houses were forwarded to the Medical Inspector of school children in order that they might receive special attention. Bedrooms occupied by those suffering from tuberculosis were disinfected after the death or removal of the patient. In a few instances it was found either unnecessary or undesirable for various reasons to take any action.

Of the persons notified to be suffering from tuberculosis forty-two were insured (under the National Insurance Act) and forty-seven were the dependents of insured. Fourteen of the insured received Sanatorium treatment, one Domiciliary treatment. Of the fourteen mentioned four were discharged after periods varying from seventeen days to ten weeks :—these four died soon after discharge. Three improved after eight weeks treatment and are now following their usual employment. Two on discharge left the district,—their condition is unknown. The condition of two remains the same. One subsequently was admitted to another sanatorium,—one is at present very ill,—one is still in the sanatorium.

The number of deaths resulting from tuberculosis in the several districts was as follows :—

		Pulmonary.	Other forms.	Total.
Guisborough Rural	...	8	1	9
Guisborough Urban	...	8	4	12
Loftus Urban	...	3	2	5
Redcar Urban	...	10	7	17
Saltburn Urban	...	2	1	3
Skelton & Brotton Urban	...	8	7	15

There are certain desiderata in the treatment and prevention of tuberculosis (and these cannot be divorced) which require very careful consideration,—these are :—

(1) The exercise of the greatest possible care in the selection of cases sent to sanatoria; unless this be done this one form of treatment will fall into disrepute.

(2) The provision of a hospital for those in a hopeless condition whose return home would be a menace to the health of the family

(3) The provision of some arrangement for the after-care of patients discharged from sanatoria.

Factory and Workshop Act.

The following list shows the number and nature of Factories, Workshops, and Workplaces on the Register.

Factories :—				Workshops :—			
Blast Furnaces	...	...	2	Shoemakers	...	...	16
Slag-brick works	...	...	2	Bakers	...	...	13
Tar-macadam works		...	1	Carpenters	...	...	12
Printing	...	...	2	Dressmakers	...	...	13
Aerated waters	...	...	2	Tailors	...	...	5
Laundry	...	...	1	Plumbers	...	...	4
Dairy	...	...	1	Blacksmiths	...	...	4
Sausage making	...	...	3	Ice-cream makers	...	...	5
Whitesmith	...	...	1	Cycle repairers	...	...	2
Gas works	...	...	1	Saddler	...	...	1
Slag-wool works	...	...	1	Laundry	...	...	1
Motor works	...	...	1	Photographer	...	...	1
Carpentry	...	...	1	Coachbuilder	...	...	1
Woodcutting	...	...	2	Printer	...	...	1
			21				79

Workplaces.			
Bottling	...	...	2
Fish-frying	...	...	6
Restaurant kitchens		...	18
			26

Table of Birth and Mortality Rates
in the several Districts in the Union.

DISTRICT.	Population estimated to middle of year 1913.	Births :— Uncorrected number.	Births :— Corrected number.	Birth Rate.	Deaths registered in District.	Death Rate.	Deaths of Non-residents registered in the District.	Deaths of Residents not registered in the District.	Deaths of Infants (under 1 year of age).	Infant Mortality Rate.	Total number of Deaths at all ages.	Death Rate.	Infectious Diseases Death Rate (excluding tuberculosis).	Tuberculosis Death Rate.	Diarrhoeal Diseases Death Rate.
Guisborough Rural	7860	190	190	24.17	119	15.13	2	7	17	89.4	124	15.77	1.14	1.14	Nil
Guisborough Urban	7100	214	211	29.71	114	16.05	16	3	22	109.0	101	14.22	1.25	1.69	0.14
Loftus Urban	9300	279	279	30.00	121	13.01	0	9	37	132.6	130	13.97	1.62	0.54	0.9
Redcar Urban	11500	256	258	22.46	142	12.34	6	13	28	108.5	149	12.95	1.04	1.21	0.52
Saltburn Urban	3500	53	53	15.08	36	10.28	4	7	5	94.4	39	11.14	0.86	0.86	Nil
Skelton & Brotton Urban	16000	463	465	29.06	186	11.62	1	12	58	124.7	197	12.31	0.56	0.93	0.62
Totals and Averages	55260	1455	1456	26.34	718	12.99	29	51	167	114.6	740	13.39	1.04	1.10	0.47

Table III.
Causes of, and Ages at Death during the year 1913.

CAUSES OF DEATH.			Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								
			All ages.	Under 1 year.	1 and under 2 years	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and up- wards.
1			2	3	4	5	6	7	8	9	10
All causes	{	Certified All									
		Uncertified									
1.	Enteric Fever	... ..								
2.	Small Pox	... ..								
3.	Measles	... ..								
4.	Scarlet Fever	... ..	6		1	3	1	1			
5.	Whooping Cough	... ..	2		1	1					
6.	Diphtheria and Croup	... ..	4			2	2				
7.	Influenza	.. ...	2						2		
8.	Erysipelas	... ..	2	2							
9.	Phthisis (Pulmonary Tuberculosis)		10					2	6	2	
10.	Tuberculous Meningitis	... ..	1			1					
11.	Other Tuberculous Diseases	... ..	6		1		1	1	2	1	
12.	Cancer, malignant disease	... ..	16					1	1	7	7
13.	Rheumatic Fever	.. ...								
14.	Meningitis	... ..								
15.	Organic Heart Disease	... ..	12						1	5	6
16.	Bronchitis	... ..	10	6						1	3
17.	Pneumonia (all forms)	... ..	10			3	1		1	4	1
18.	Other diseases of respiratory 										

Infant Mortality.

Over twenty-two per cent. of the deaths in the Guisborough Union during the year occurred among infants (under one year of age). There is no doubt that a very large proportion of these had an ante-natal cause, that is, they resulted directly from the unhealthy condition of one or both parents. The large number of deaths certified to be due to premature birth, marasmus, inanition, convulsions, &c., indicates this. A reduction in the number of such deaths cannot be expected until individuals recognise that as they are so their children will be and recognising this will lead healthy lives.

It is a matter for congratulation that Education Authorities have at last realised the necessity of teaching cooking and house-work. Much of the unhealthy condition existing proceeds from lack of nourishment, not from lack of means to obtain that nourishment but of lack of knowledge of the feeding value of the various foods and of the best means of so cooking foods as to render them digestible. This teaching requires to be carried further, general hygiene should be taught practically.

Future Action.

(1) Of the steps to be taken to maintain and improve the public health the most pressing is the provision of *efficient* accommodation for the isolation of cases of infectious diseases. That existing at present is primitive and absolutely inadequate, consisting as it does of a small house in which only one kind of infectious disease can be treated at one and the same time. It lacks many of the necessary structural arrangements and appliances.

From time to time during the past five and twenty years efforts have been made to bring about the provision of a joint isolation hospital. Meeting after meeting has been held, schemes considered and formulated, plans obtained, sites provisionally arranged for, &c. All these attempts have ended in failure.

At a recent meeting of the Council it was resolved that a hospital be provided for the Redcar district only, not in conjunction with other Councils. A committee was appointed to consider the whole matter. In the meantime infectious diseases continue to prevail, causing trouble, anxiety, and distress.

(2) It is a matter of regret that the effort made by the Council last year to obtain the consent of the butchers in the town to use a public slaughterhouse failed. The situation and condition of some of the slaughterhouses are anything but ideal. Under the present conditions efficient supervision of meat is difficult. It cannot but be admitted that in the interest of the public health a public slaughterhouse is requisite.

(3) The adoption of some scheme for the purification of the sewage at Warrenby before it discharges into the 'stell,' a slow-flow stream, or some other method of dealing with it which will prevent the pollution of the stell.

(4) The enforcement of the byelaw which requires the removal of animal manure once a week,—specially necessary during the summer months.

(5) The great increase in the population during the season renders it necessary that an official be appointed to supervise the removal of refuse of all kinds, paying special attention to the scavenging of animal manure pits.

This part of the report would not be complete without a reference to remarks made in previous years as to the necessity of *individual* action, remarks no less needed now than then. Inspections and special visits made show that in many houses the most elementary laws of health are unfulfilled,—domestic and personal cleanliness being neglected, ventilation of bedrooms more honoured in the breach than the observance, sunlight excluded by drawn blinds, &c. In too many instances little attempt is made to maintain conveniences in a cleanly condition, lime-washing of the walls of these is very rarely done. Reform of the conditions under the control of the individual is as requisite as that depending on the action of the local authority.

There is a consensus of opinion that a connection exists between the occurrence of tuberculosis and defective housing. Improve housing by all means, but unless such improvement be accompanied by reform *in* the house it will be of little avail.

Saltburn,

March 28th, 1914.

I am, Gentlemen,

Yours obediently,

W. W. STAINTHORPE.

Table IV.
Infant Mortality.

1913. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.			Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks & under 3 months.	3 months & under 6 months.	6 months & under 9 months.	9 months & under 12 months.	Total Deaths under 1 year.
All causes	{ Certified. All											
	{ Uncertified.											
Small-pox	...	...								
Chicken-pox	...	...								
Measles	...	...								
Scarlet fever	...	...								
Whooping-Cough	...	...								
Diphtheria and Croup	...											
Erysipelas	...	...			2		2					2
Tuberculous Meningitis	...											
Abdominal Tuberculosis	...											
Other Tuberculous Diseases												
Meningitis (not Tuberculous)												
Convulsions	...	...									1	1
Laryngitis	...	...								
Bronchitis	...	...			1		1	1	1	1	2	6
Pneumonia (all forms)	...											
Diarrhœa	...	...						2	2		1	5
Enteritis	...	...								
Gastritis	..	...									1	1
Syphilis	...	...								
Rickets	...	..								
Suffocation, overlying	...											
Injury at birth	...	...								
Atelectasis	...	..								
Congenital Malformations	...		2				2					2
Premature birth	...	...	2		1		3	1				4
Atrophy, Debility and Marasmus	...	...		2	1		3		1			4
Other Causes	...	..	1				1		1		1	3
			5	2	5		12	4	5	1	6	28
Nett Births in the year			{ legitimate 248 illegitimate 15				Nett Deaths in the year of		{ legitimate infants 25 illegitimate infants 3			
					258						28	

ADDENDUM.

Since this report was printed I have received from the Local Government Board a copy of a report on the Statistics of the Incidence of Infectious Diseases in England and Wales during the year 1913.

In an accompanying circular the Medical Officer says “It is hoped that you will utilise “ these statistics in comparing your own with other districts similarly circumstanced in the same “ county, and with other districts in other counties.”

The factors influencing the prevalence of infectious diseases vary so much as to render it difficult to make a true comparison between one district and another. An urban district with its population massed together cannot be compared with one in which the population is scattered over a wide area. A town in which the inhabitants are mainly employed in some industry cannot be compared with one the inhabitants of which are chiefly of the commercial class. The proportion of children to adults may be much larger in one district than another; unless the proportion be known a true comparison cannot be made. One district differs from another as regards the importation of infection from without. A large number of the residents in Redcar travel to and from neighbouring towns daily, a number of children attend schools outside the district, a very large number of visitors (season and day) come into it during the summer: it is thus specially open to the importation of disease and therefore cannot be compared with any district where the conditions named do not prevail. As to scarlet fever and diphtheria no true comparison can be made unless the figures used are the average of a period of years. One district may have an epidemic one year with the result that the number of cases in the following years (4 or 5) is small. The next year another district may be subject to an epidemic.

Guisborough Rural district has the unenviable position of having the highest attack rate from scarlet fever of any rural district in the North Riding and only one *urban* district in the Riding is higher. Redcar has this unenviable position so far as regards diphtheria, it having the highest attack rate in the whole of the Riding.

The attack rate from enteric fever in the Administrative County (North Riding) was 0·19 per 1000,—in the Guisborough Union it was 0·06.

W. W. STAINTHORPE.

